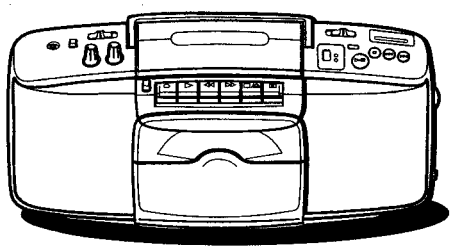
aiwa

aiwa SERVICE

CSD-SL10

SERVICE MANUAL



COMPACT DISC STEREO
RADIO CASSETTE RECORDER

- BASIC TAPE MECHANISM : TN-21ZSC-1745
- BASIC CD MECHANISM : 3ZG-2 D1
- TYPE: HE, HR, EZ, K

S/M Code No. 09-977-208-90I

SPECIFICATONS

<GENERAL>

Speaker	100 mm cone type (2) 75 mm cone type (2)
Output	Headphones jack (stereo mini-jack)
Power output	<HE, HR Models> 2 W + 2 W (EIAJ 8 ohms DC) <EZ Model> 3 W + 3 W (D/N Music power) 2 W + 2 W (10% T.H.D. /8 ohms DC) 1.4 W + 1.4 W (D/N 1% Rated Power) <K Model> 2 W + 2 W (10% T.H.D. /8 ohms DC) 1.4 W + 1.4 W (D/N 1% Rated Power)
Power requirements	DC 12 V using eight size C (R14) batteries, <HE, HR Models> AC 110–120 V/220–240 V, Switchable 50/60 Hz <EZ, K Models> AC 230 V, 50 Hz
Power consumption	<HE, HR Models> 15 W <EZ, K Models> 16 W
Dimensions	410 (W) x 191.7 (H) x 142 (D) mm
Weight	3.2 kg (excluding barreries)

<CD player section>

Disc	Compact disc
Scanning method	Non-contact optical scanner (semiconductor laser)

<Deck section>

Track format	4 tracks, 2 channels
Frequency range	Normal tape: 50 - 12,500 Hz (EIAJ)
Recording system	AC bias
Erasing system	Magnet erase
Heads	Recording/playback head (1), Erasure head (1)

<Tuner section>

Frequency range, antenna	FM: 87.5 - 108.0 MHz Rod antenna, AM: 530 - 1,605 kHz Ferrite bar anteena

• Design and speicifications are subject to change without notice.

ACCESSORIES LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

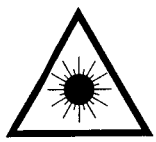
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	S4-402-411-000		INSTRUCTION MANUAL<HE,HR>
1	S4-402-471-000		INSTRUCTION MANUAL<EZ>
1	S4-402-491-000		INSTRUCTION MANUAL<K>
⚠ 2	S1-400-122-000		CORD,POWER AC
⚠ 3	S2-3A0-092-000		PLAG CONVERSION CCT5902B0701<HE,HR>
⚠ 3	S2-3A0-181-000		PLAG,CONVERSION<EZ,K>

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynling laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

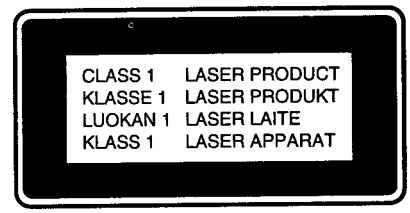
ATTENTION

L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

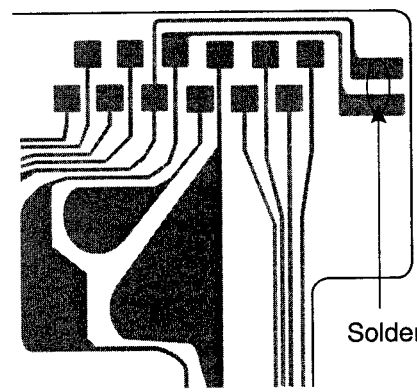


Precaution to replace Optical block

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in the right figure.

CD PICK-UP ASSY P.C.B.



ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A20-186-010		IC,LA9240M
	87-A20-187-010		IC,LC78622E
	87-A20-157-010		IC,TA2092N
	87-001-536-010		IC,NJM78M05FA
	86-CD9-601-080		IC,LC6543F-4H30
	87-027-761-010		IC,AN7310N
	S8-382-270-000		IC,TA8227P
	87-A20-356-080		C-IC,MM1326AJBE
	S1-011-710-000		IC,TA8127N
TRANSISTOR			
	87-A30-015-080		TR,2SA1317-S-AC
	89-112-965-080		TR,2SA1296GR
	87-026-291-080		TR,DTC124XS
	87-026-216-010		TR,DTA124ES
	S2-805-0C1-000		TR,8050C
	89-210-642-010		TR,2SB1064Y2E
	89-304-583-010		TR,2SC458C
	89-318-155-080		TR,2SC1815GR
	89-317-403-080		TR,2SC1740S
DIODE			
	87-020-465-080		DIODE,1SS133
	87-002-822-080		ZENER,2.2V 1/2W
	82-135-799-010		DIODE,IN-4148
	S3-FR2-022-000		DIODE,FR202
	87-070-335-080		ZENER,MTZJ8.2B
	S3-SD1-161-000		DIODE,SD116
MAIN C.B			
C101	87-010-264-080		CAP,E 100UF-10V
C102	87-015-695-080		CAP,E 1UF-50V
C103	87-010-560-080		CAP,E 10UF-50V
C106	87-010-264-080		CAP,E 100UF-10V
C108	87-A10-189-040		CAP,E 220UF-10V
C110	87-015-695-080		CAP,E 1UF-50V
C111	87-010-038-080		CAP,E 22UF-25V
C112	87-010-067-080		CAP,E 0.1UF-50V
C125	87-010-495-040		CAP,E 2.2UF-50V
C127	87-010-496-080		CAP,E 3.3UF-50V
C128	87-015-695-080		CAP,E 1UF-50V
C134	87-A10-102-080		CAP,E 1000UF-10V
C135	87-A10-102-080		CAP,E 1000UF-10V
C137	87-A10-189-040		CAP,E 220UF-10V
C139	87-015-695-080		CAP,E 1UF-50V
C142	87-010-380-010		CAP,E 47UF-16V
C143	87-015-698-040		CAP,E 4.7UF-50V
C156	87-010-264-080		CAP,E 100UF-10V
C161	87-010-380-010		CAP,E 47UF-16V
C162	87-015-698-040		CAP,E 4.7UF-50V
C164	87-010-264-080		CAP,E 100UF-10V
C168	87-010-560-080		CAP,E 10UF-50V
C171	87-010-560-080		CAP,E 10UF-50V
C172	87-010-560-080		CAP,E 10UF-50V
C180	87-016-285-080		CAP,E 47UF-10V
C201	87-A10-189-040		CAP,E 220UF-10V
C208	87-A10-189-040		CAP,E 220UF-10V
C209	87-010-264-080		CAP,E 100UF-10V
C253	87-010-264-080		CAP,E 100UF-10V
C254	87-010-264-080		CAP,E 100UF-10V
C257	87-015-698-040		CAP,E 4.7UF-50V
C258	87-015-698-040		CAP,E 4.7UF-50V
C259	87-015-698-040		CAP,E 4.7UF-50V
C260	87-015-698-040		CAP,E 4.7UF-50V
C303	87-015-695-080		CAP,E 1UF-50V
C304	87-015-695-080		CAP,E 1UF-50V
C307	87-010-112-510		CAP,E 100UF-16V
C308	87-010-112-510		CAP,E 100UF-16V
C309	87-010-112-510		CAP,E 100UF-16V
C310	87-010-112-510		CAP,E 100UF-16V
C319	87-015-695-080		CAP,E 1UF-50V
C320	87-015-695-080		CAP,E 1UF-50V
C321	87-015-695-080		CAP,E 1UF-50V
C322	87-015-695-080		CAP,E 1UF-50V
C331	87-016-589-090		CAP,E 3300UF-25V
C336	87-010-112-510		CAP,E 100UF-16V
C338	87-A10-189-040		CAP,E 220UF-10V
C339	87-A10-102-080		CAP,E 1000UF-10V
C340	87-010-112-510		CAP,E 100UF-16V
C341	87-010-235-080		CAP,E 470UF-16V
C342	87-010-560-080		CAP,E 10UF-50V
C343	87-010-244-010		CAP,E 22UF-16V
C351	87-010-075-040		CAP,E 10UF-16V
C352	87-010-264-080		CAP,E 100UF-10V
C354	87-016-285-080		CAP,E 47UF-10V
C403	87-010-545-010		CAP,E 0.22UF-50V
C404	87-010-545-010		CAP,E 0.22UF-50V
C416	87-010-545-010		CAP,E 0.22UF-50V
C418	87-015-694-080		CAP,E 0.47UF-50V
C420	87-010-496-080		CAP,E 3.3UF-50V
C421	87-015-695-080		CAP,E 1UF-50V
C432	87-010-265-010		CAP,E 33UF-16V
C450	87-A10-189-040		CAP,E 220UF-10V
C451	87-010-444-080		CAP,E 22UF-50V
C454	87-016-285-080		CAP,E 47UF-10V
C455	87-015-695-080		CAP,E 1UF-50V
CF410	S2-900-081-000		CER,FILTER FM 10.7MHZ
CF430	S2-900-371-000		C-FILTER,SFU465B<K,EZ>
CF430	S2-900-351-000		CER,FILTER SFU455B<HR,HE>
FFC102	S1-201-931-000		CABLE FFC 70MM 16P
L101	87-003-098-080		INDUCTOR,2.2UH
L102	87-003-098-080		INDUCTOR,2.2UH
L103	87-A50-073-080		INDUCTOR,4.7UH
L104	87-A50-073-080		INDUCTOR,4.7UH
L105	87-003-098-080		INDUCTOR,2.2UH
L106	87-003-098-080		INDUCTOR,2.2UH
L107	87-003-098-080		INDUCTOR,2.2UH
L108	87-005-130-080		INDUCTOR,10UH
L109	87-003-098-080		INDUCTOR,2.2UH
L301	S6-020-620-000		COIL,OSC BIAS AC 10-10
L415	S6-021-720-000		IFT,FM 10-10
L416	S6-030-420-000		IFT,FM F-825438(10-10)
L430	S1-800-031-000		BAR,FERRITE 10-80
L430	S7-B00-811-000		COIL,ANT MW 98T:16T
L431	S6-021-620-000		COIL,OSC MW 10-10
L432	S6-021-820-000		IFT,AM A-822867(10-10)
L450	87-005-684-080		INDUCTOR,10UH
PVC401	S2-300-272-000		PVC,WF420LT12-A23601
SFR201	SR-V10-390-000		SFR,10K
SFR410	SR-V10-390-000		SFR,10K
SW201	S8-029-210-000		SW,SLIDE REC/PLAY 10P2T
SW301	S8-029-110-000		SW,SLIDE 4P3T(SK43D06GA9)
SW302	S8-029-010-000		SW,SLIDE 2P2T(PS-22E03Z8A)
SW401	S8-028-810-000		SW,SLIDE 2P2T(SK22J01G9A)
SW402	S8-028-910-000		SW,SLIDE 2P3T(SK23E01G18A)
X101	S2-900-312-000		CER,RESO(FCR16.93M2G)
X102	S2-900-631-000		CER,RESO 4.0MHZ
SW C.B			
SW501	S8-TRT-134-P01		SW,TACT 1P1T TRT134
SW503	S8-TRT-134-P01		SW,TACT 1P1T TRT134
SW504	S8-TRT-134-P01		SW,TACT 1P1T TRT134
SW505	S8-TRT-134-P01		SW,TACT 1P1T TRT134
SW506	S8-TRT-134-P01		SW,TACT 1P1T TRT134

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
DISPLAY C.B			
D501	S2-700-881-000		DISPLAY DIGITAL SINGLE
D502	S2-800-011-000		LED,3MM(RED)
D503	S2-800-011-000		LED,3MM(RED)
VR C.B			
VR601	S1-501-332-000		VOL,TON RK14K12303A-50KD
VR602	S1-501-492-000		VOL,MAIN RK14K12C030A-50KD
JACK C.B			
C311	87-010-980-080		CAP,E 330UF-16V
C312	87-010-980-080		CAP,E 330UF-16V
J301	S2-3B0-111-000		JACK,HP ST

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
CD MOTOR C.B			
M2	87-045-358-019		MOTOR
M3	87-045-356-019		MOTOR
SW2	87-036-340-019		SW
POWER C.B			
BATT-1 C.B			
	S2-012-720-101		SPR,BATT(-)
BATT-2 C.B			

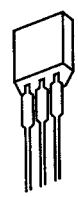
TRANSISTOR ILLUSTRATION

E C B

2SA1296
2SC458
2SC1815

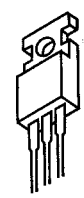
E B C

8050C



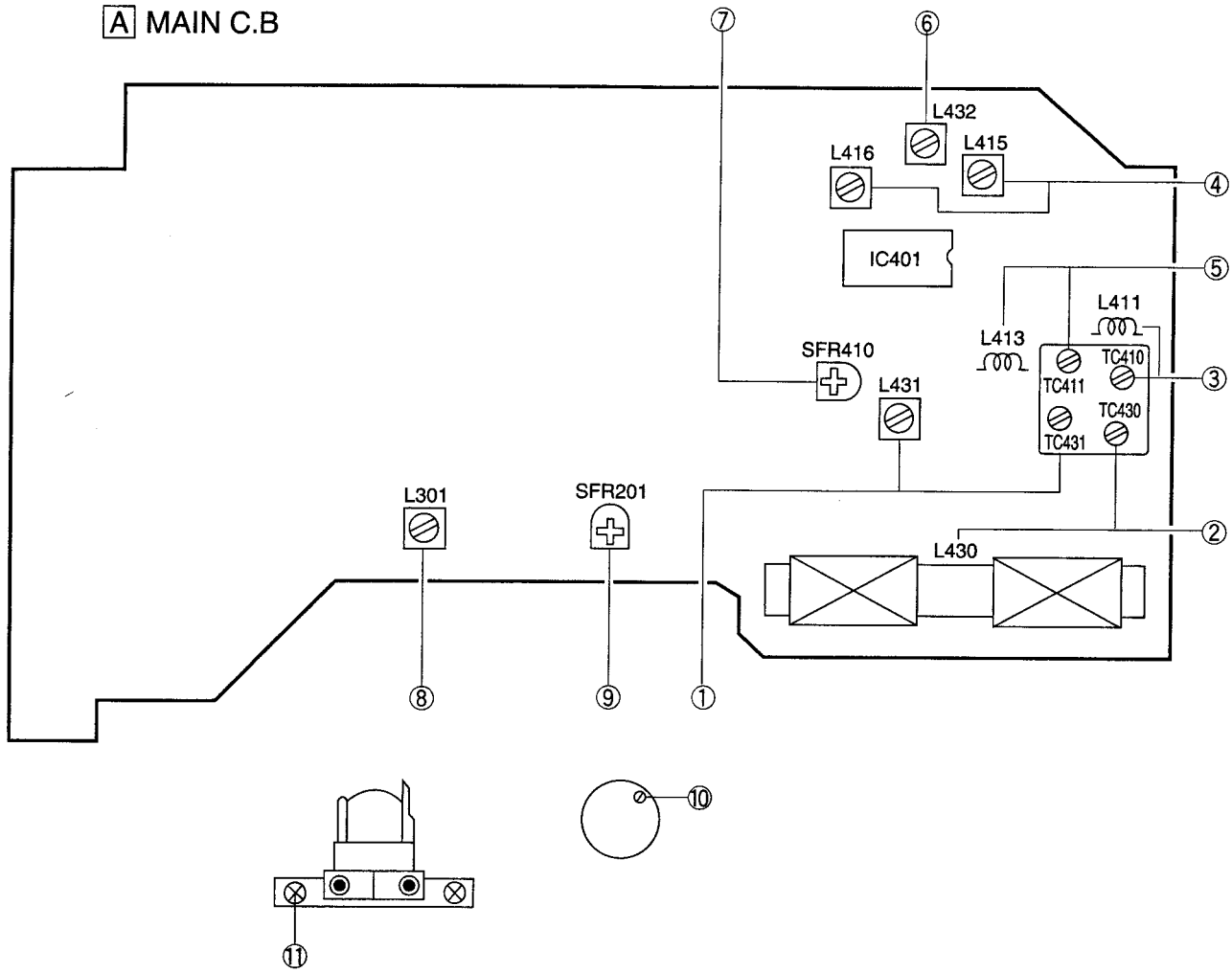
E C B

2SA1317
2SC1740S
DTA124ES
DTC124XS



B C E

2SB1064



<TUNER SECTION>

1. AM Freq. Range Adjustment
   - L431 ..... 515 kHz
   - TC431 ..... 1650 kHz (HE, HR)
     1635 kHz (EZ, K)
2. AM Tracking Adjustment
   - L430 ..... 600 kHz
   - TC430 ..... 1400 kHz
3. FM Tracking Adjustment
   - L411 ..... 88 MHz
   - TC410 ..... 108 MHz
4. FM IF Adjustment
   - L415, 416 ..... 10.7 MHz
5. FM Freq. Range Adjustment
   - L413 ..... 87 MHz (HE, HR)
     87.4 MHz (EZ, K)
   - TC411 ..... 109 MHz (HE, HR)
     108.3 MHz (EZ, K)
6. AM IF Adjustment
   - L432 ..... 455 kHz
7. VCO Freq. Adjustment
   - SFR410 ..... 76 kHz

<TAPE DECK SECTION>

8. Bias Freq. Adjustment
   - L301 ..... 60 kHz
9. Bias Level Adjustment
   - SFR201 ..... 12 V
10. Tape Speed Adjustment
    - Conditions: · Test tape: TTA-100
      · Test point: J1 (PHONES jack)
      · Adjustment location: SFR of deck motor
    - Method: Playback the test tape and adjust so that the output frequency is 3000 Hz.
11. Azimuth Adjustment
    - Conditions: · Test tape: TTA-320
      · Test point: J1 (PHONES jack)
      · Adjustment location: Azimuth adjustment screw
    - Method: Playback the 8 kHz portion of the test tape and adjust so that the output is maximum.

PRACTICAL SERVICE FIGURE

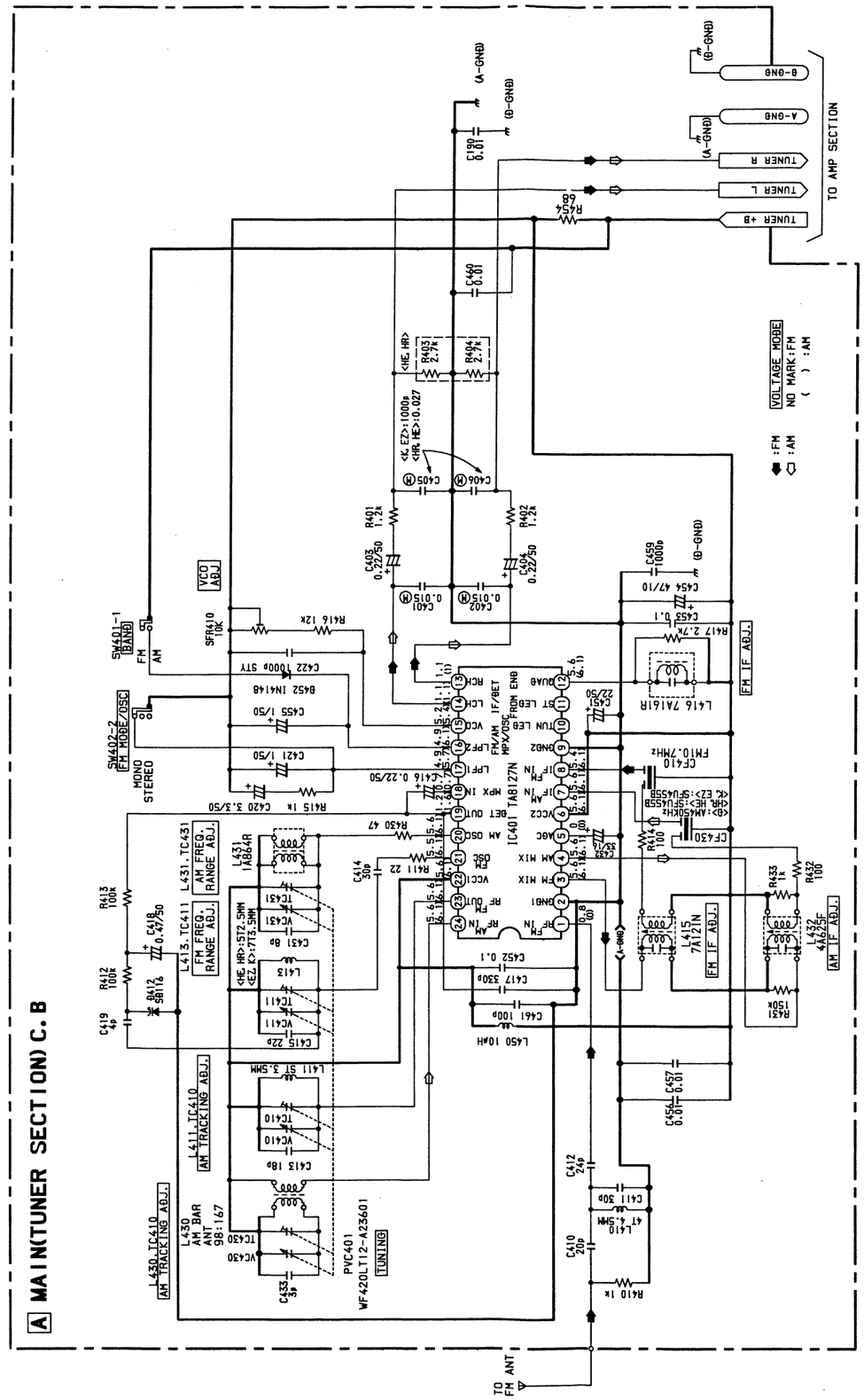
<TUNER SECTION>

Sensitivity:	
(IHF, THD 3%)	FM Less than 23 dB (at 88, 98, 108 MHz) AM Less than 52 dB (at 600, 1000, 1400 kHz)
Intermediate Frequency:	FM 10.7 MHz AM 455 kHz

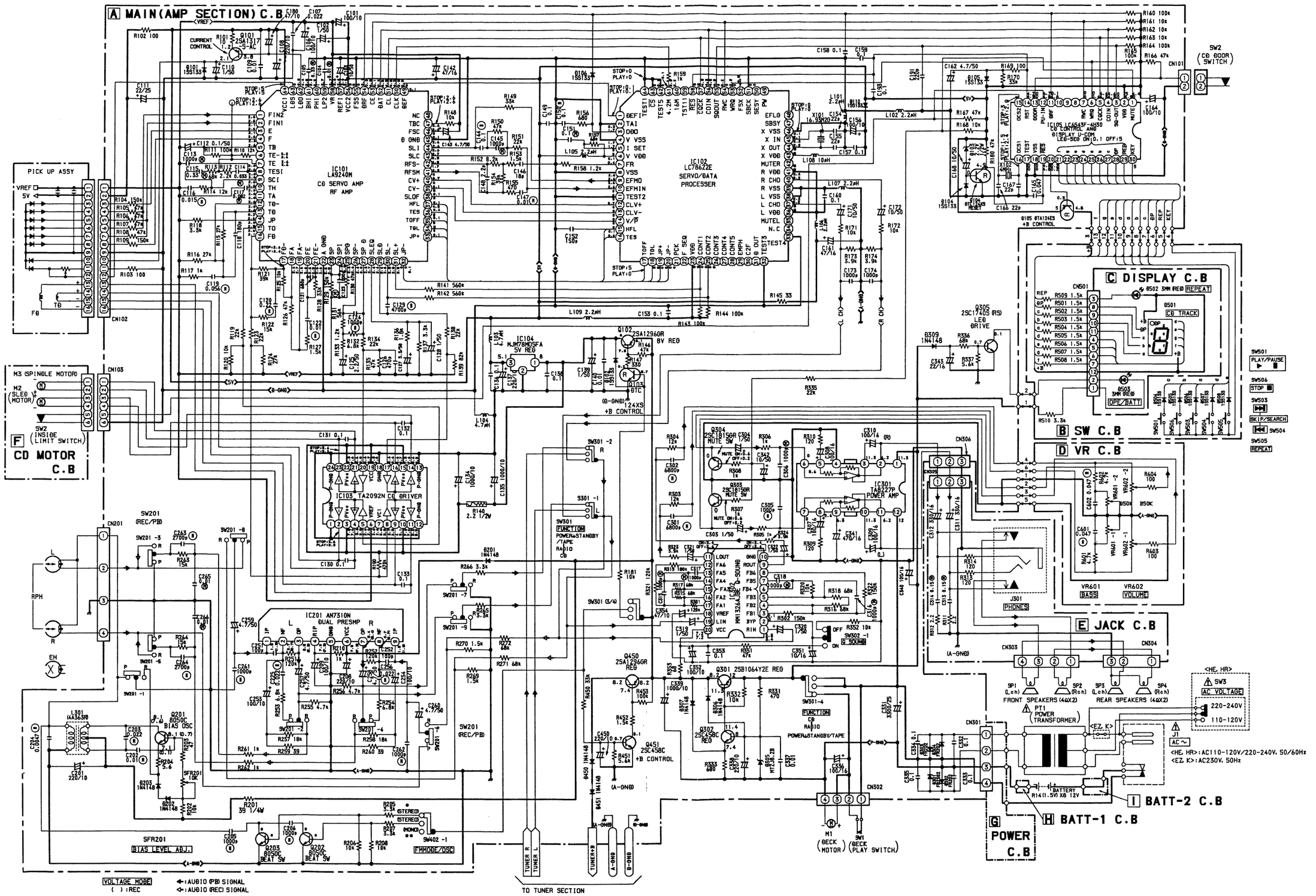
<TAPE SECTION>

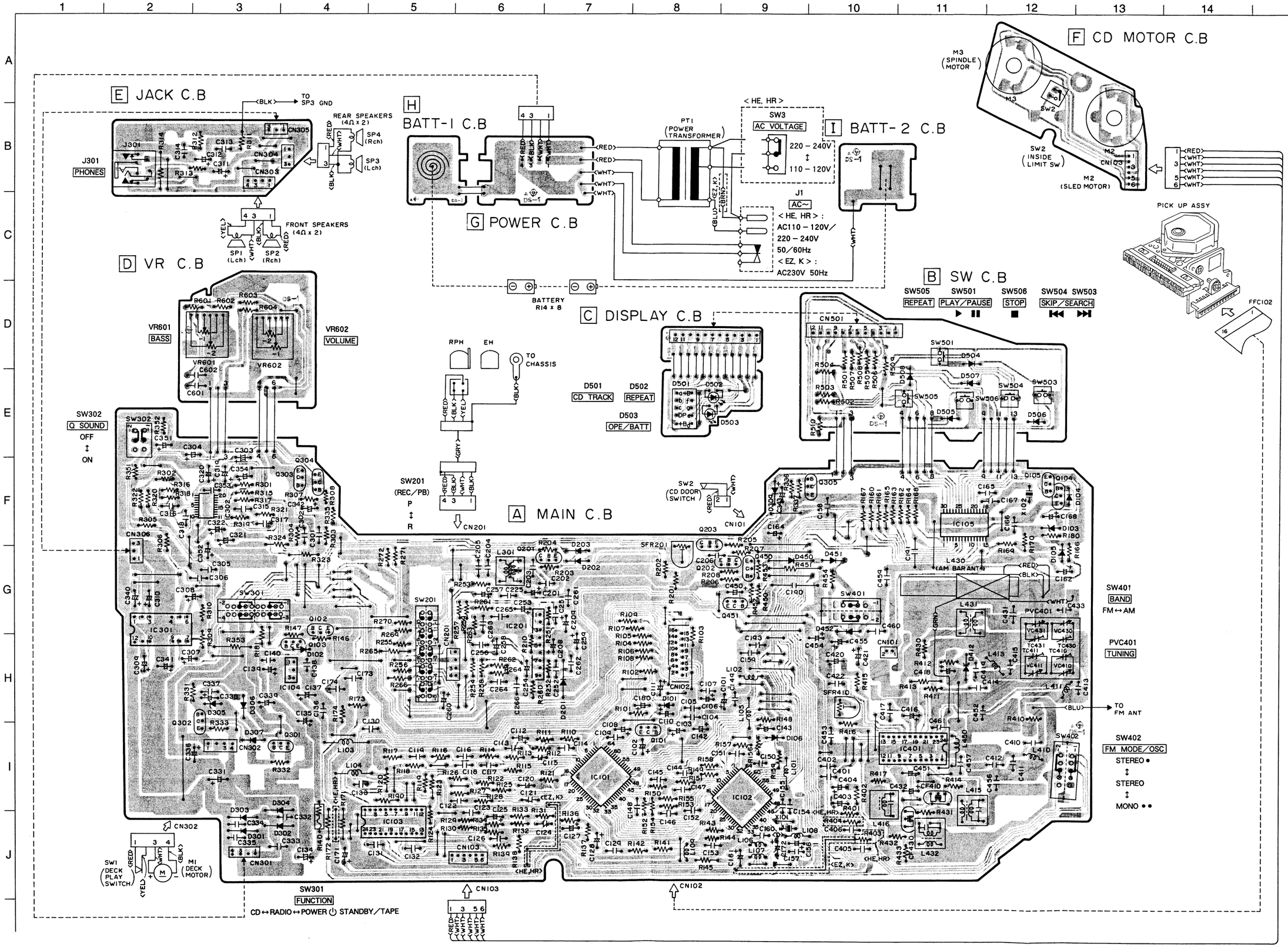
Distortion:	Less than 1.5% (PB)
S/N Ratio:	More than 40 dB (PB, R/PB, AC, DC)
Nose Level:	Less than 35 mV (PB, DC) Less than 40 mV (PB, AC) Less than 45 mV (R/PB, DC) Less than 50 mV (R/PB, AC)
Erasing Ratio:	More than 57 dB
Tape Speed:	3000 Hz + 30% – 20%
Wow & Flutter:	Less than 0.35% (RMS)
Take-up Torque:	30 ~ 60 g-cm (FWD)
FF & Rew Torque:	50 ~120 g-cm
Test Tape:	TTA-100 NORMAL TTA-602

SCHEMATIC DIAGRAM -1(TUNER SECTION)

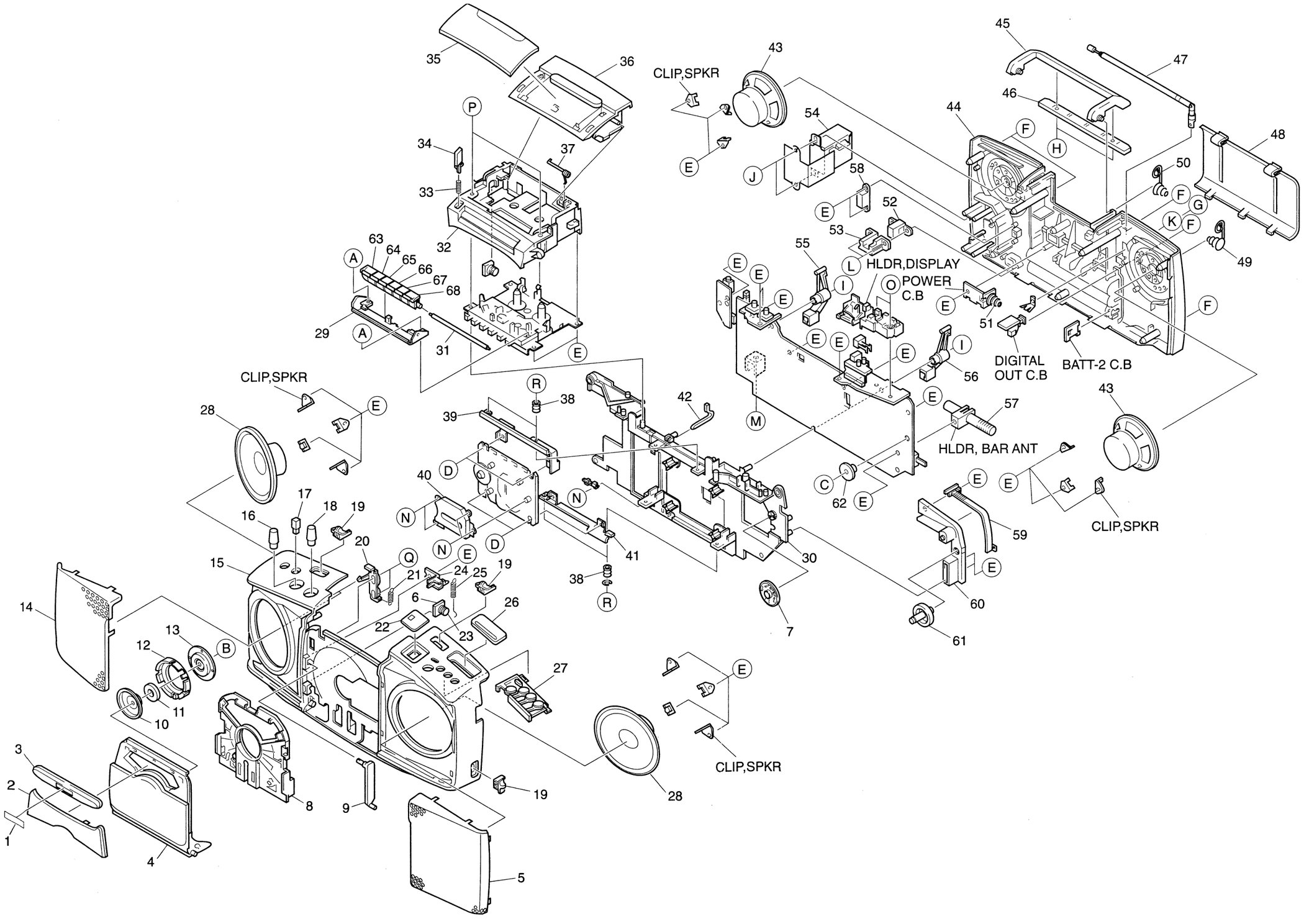


SCHEMATIC DIAGRAM-2 (MAIN SECTION)




E JACK C.B
TO SP3 GND
REAR SPEAKERS (4Ω x 2)
SP4 (Rch)
SP3 (Lch)
J301 PHONES
FRONT SPEAKERS (4Ω x 2)
SP1 (Lch)
SP2 (Rch)
H BATT-1 C.B
G POWER C.B
PT1 (POWER TRANSFORMER)
< HE, HR >
SW3 AC VOLTAGE
220 – 240V
110 – 120V
J1 AC~
< HE, HR > : AC110 – 120V/ 220 – 240V 50/60Hz
< EZ, K > : AC230V 50Hz
I BATT-2 C.B
BATTERY R14 x 8
F CD MOTOR C.B
M3 (SPINDLE MOTOR)
SW2 (INSIDE LIMIT SW)
M2 (SLED MOTOR)
PICK UP ASSY
FFC102
D VR C.B
VR601 BASS
VR602 VOLUME
C DISPLAY C.B
D501 CD TRACK
D502 REPEAT
D503 OPE/BATT
B SW C.B
SW505 REPEAT
SW501 PLAY/PAUSE
SW506 STOP
SW504 SW503 SKIP/SEARCH
SW302 Q SOUND OFF ↕ ON
RPH
EH
TO CHASSIS
SW201 (REC/PB) P ↕ R
A MAIN C.B
SW2 (CD DOOR) SWITCH
SW1 (DECK PLAY SWITCH)
M1 (DECK MOTOR)
SW301 FUNCTION
CD ↔ RADIO ↔ POWER ⏻ STANDBY/TAPE
SW401 BAND FM ↔ AM
PVC401 TUNING
TO FM ANT
SW402 FM MODE/OSC
STEREO ● ↕ STEREO ↕ MONO ● ●

MECHANICAL EXPLODED VIEW 1/1

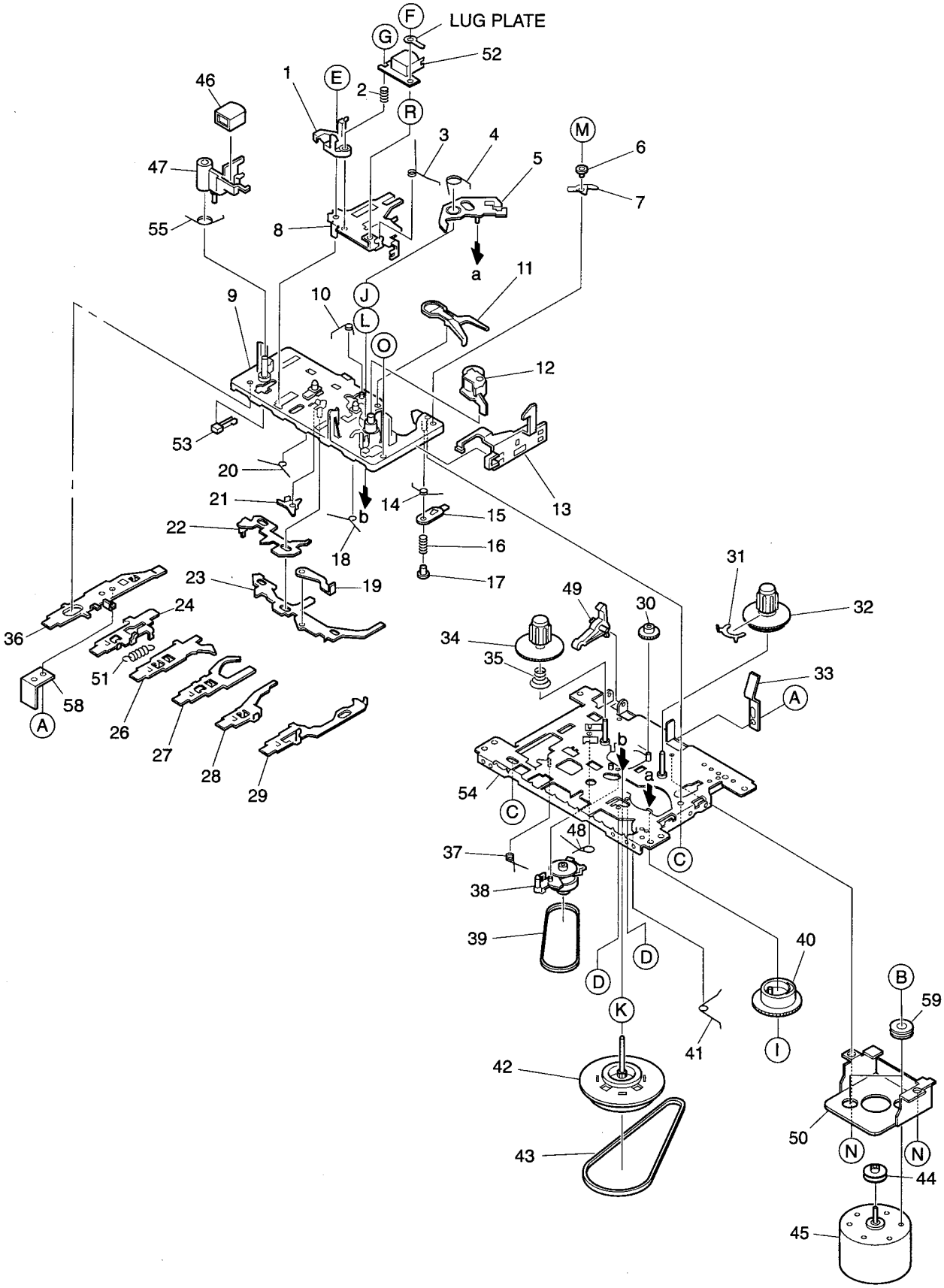


MECHANICAL PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	S1-023-360-101		BADGE AIWA
2	S1-036-970-101		LENS,DOOR CD
3	S1-037-070-101		PANEL,DOOR CD
4	S1-036-920-103		DOOR,CD
5	S2-012-500-102		GRILL,SPKR(R)
6	S1-030-860-101		BRACKET,DAMPER
7	S1-037-120-101		GEAR,IDLER
8	S1-037-150-101		PLATE,CD
9	S1-037-240-101		PLATE,CD(C)
10	87-036-368-010		MAGNET PLATE 30.4-17.0-0.8
11	S2-005-131-000		MAGNET CD DOOR
12	S1-037-260-101		HOLDER,CHUCK
13	S1-037-290-102		CHUCK,CD
14	S2-012-490-102		GRILL,SPK(L)
15	S1-036-880-303		CAB,FRONT
16	S1-037-090-101		KNOB,TONE
17	S1-037-100-101		BTN,Q TRANSPARENT BLUD
18	S1-037-020-101		KNOB,VOL
19	S1-037-010-101		KNOB,SLIDE
20	S1-037-130-101		HOOK,DOOR CD
21	S2-012-610-101		SPR,HOOK DOOR CD
22	S1-036-980-301		LENS,DISPLAY
23	S1-030-850-102		GEAR,DAMPER
24	S1-037-250-101		PLATE,CD(D)
25	S2-012-590-101		SPR,PLATE CD
26	S1-036-990-301		LENS,DIAL
27	S1-037-050-101		KEY,CD
28	S1-700-821-000		SPKR,4 4 OHM MAX 8W
29	S2-012-530-101		BRACKET,KEY CASS
30	S1-037-110-101		BRACKET CD
31	S2-012-540-101		SHAFT,KEY CASS
32	S1-036-900-301		BRACKET CASS
33	S2-012-580-101		SPR,KNOB DOOR CD
34	S1-037-030-101		BTN,DOOR CD
35	S1-036-950-101		PANEL DOOR CASS
36	S1-036-910-103		DOOR,CASS
37	S2-012-520-101		SPR,DOOR CASS
38	S3-004-152-000		CUSHON CD
39	S2-012-560-101		HOLDER,CD(UP)
40	S2-010-860-103		COVER,CD
41	S2-012-570-101		HOLDER,CD(LOW)
42	S1-037-140-101		LEVER,RECORD
43	S1-700-831-000		SPKR,3 4 OHM NOR 3W
44	S1-036-890-302		CAB,REAR<HR,HE>
44	S1-036-890-402		CAB,REAR<K,EZ>
45	S1-036-930-202		HANDLE(GRY)
46	S1-036-940-202		COVER,HANDLE
47	SA-N00-362-000		ANT,6.0-187
48	S1-036-960-102		DOOR,BATT
49	S2-012-710-101		SPR,BATT B (+/-)
50	S2-012-700-101		SPR,BATT A (+/-)
51	S2-012-720-101		SPR,BATT(-)
⚠ 52	S2-3C0-071-000		SOCKET,AC VDE
53	S1-014-491-000		COVER JACK AC
⚠ 54	S9-033-610-000		PT,EI-48 115/230V<HR,HE>
⚠ 54	S9-033-510-000		PT,EI-48 230V/50HZ<K,EZ>
55	S1-037-160-101		LEVER SWITCH FUNCTION
56	S1-037-170-101		LEVER,SWITCH BAND
57	S1-800-031-000		BAR,FERRITE 10-80
⚠ 58	S8-024-310-000		SW,SLIDE 1P1T<HR,HE>
59	S1-037-000-101		POINTER,PP+PE
60	S1-037-280-101		BRACKET,DIAL
61	S1-037-040-101		KNOB,TUNING
62	S1-037-200-101		GEAR,VC
63	S1-037-060-201		KEY,CASS REC
64	S1-040-980-201		KEY,CASS PLAY
65	S1-041-000-201		KEY,CASS REW
66	S1-041-010-201		KEY,CASS FWD
67	S1-040-990-201		KEY,CASS STOP
68	S1-041-020-201		KEY,CASS PAUSE
A	87-743-036-410		CH/MS 2-L8MM
B	87-254-033-410		BH/MS 2-L4MM
C	87-741-073-410		BH/MS 2.6-L6MM
D	87-261-093-410		BH/MS 3-L5MM
E	87-751-095-410		BH/TS 3-L8MM
F	87-741-103-410		BH/TS 3-L22MM
G	87-841-095-410		PH/MS 3-L8MM
H	87-743-074-410		KH/TS 2.6-L7MM
I	87-078-156-010		WPH/TS 3-L10MM
J	87-743-098-410		WH/TS 3-L14MM
L	87-353-076-210		PH/TS 2.6-L12
M	87-751-094-410		BH/TS 3-L6MM
N	87-741-035-410		PH/TS 2-L6MM
O	87-751-101-410		BH/TS 3-L18MM
P	87-741-097-410		PH/TS 3-L12MM
Q	87-841-035-410		WPH/TS 2.6-L6MM
R	81-CD5-204-010		SCREW CD 2.6-L17MM

TAPE MECHANISM EXPLODED VIEW 1/1

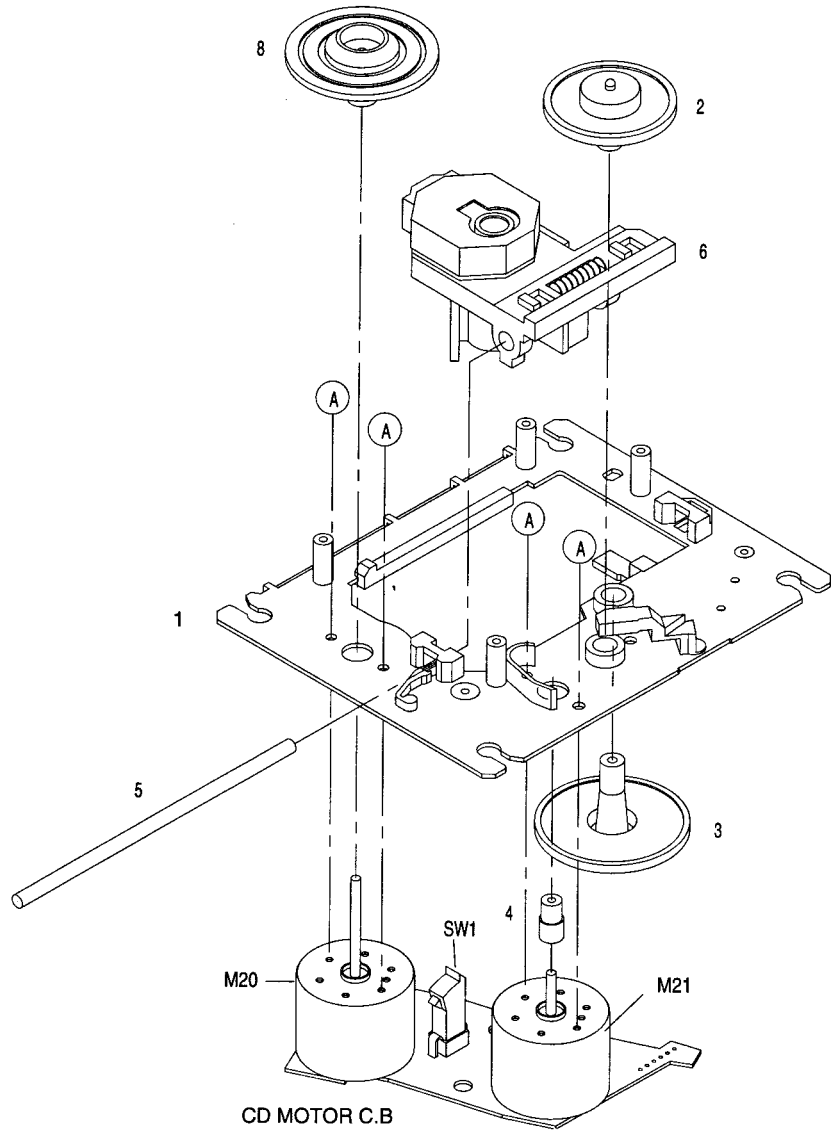


TAPE MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	S1-921-030-4A0		HEAD BASE
2	S1-821-030-070		AZIMUTH SPRING
3	S1-921-030-090		PANEL P SPRING
4	S1-921-260-050		GEAR PLATE SPRING
5	S1-921-265-020		GEAR PLATE ASSY
6	S1-921-140-370		P ARM COLLER
7	S1-921-140-340		P ARM
8	S1-921-030-110		HEAD PANEL
9	S1-921-143-010		BASE ASSY
10	S1-921-141-8A0		M CONTROL SPRING
11	S1-921-260-4A0		SENSING LEVER
12	S1-921-043-090		PINCH ROLLER ARM ASY
13	S1-921-130-010		EJECT SLIDE LEVER
14	S1-921-141-3A0		P CONTROL SPRING
15	S1-921-140-550		PAUSE LEVER(E)
16	S1-921-140-120		PAUSE LEVER SPRING
17	S1-921-140-110		PAUSE STOPPER
18	S1-921-140-150		BUTTON LEVER SPRING(B)
19	S1-821-011-590		E KICK LEVER
20	S1-921-140-140		BUTTON LEVER SPRING(A)
21	S1-921-140-200		PR STOPPER
22	S1-921-140-090		SWITCH ACTUATOR
23	S1-921-140-080		PUSH BUTTON ACTUATOR
24	S1-921-140-190		PLAY BUTTON LEVER
26	S1-921-140-040		REW BUTTON LEVER
27	S1-921-140-050		FF BUTTON LEVER
28	S1-921-140-060		STOP BUTTON LEVER
29	S1-921-140-600		PAUSE BUTTON LEVER
30	S1-821-100-700		FF GEAR
31	S1-921-050-060		SENSER
32	S1-921-053-030		TAKE UP REEL ASSY
33	S1-821-100-980		PACK SPRING
34	S1-921-053-040		SUPPLY REEL ASSY
35	S1-821-100-990		BACK TENSION SPRING
36	S1-921-140-030		REC BUTTON LEVER
37	S1-921-140-170		P.S.LEVER SPRING
38	S1-921-073-040		RF CLUTCH ASSY
39	S1-921-070-030		RF BELT
40	S1-921-260-020		CAM GEAR
41	S1-921-140-160		E ACTUATOR SPRING
42	S1-921-093-030		FLYWHEEL ASSY
43	S1-921-090-040		MAIN BBELT
44	S1-921-120-010		MOTOR PULLEY
45	S6-002-030-220		MOTOR EG530AD-2B
46	S6-209-100-100		E HEAD PH-K380-MS1
47	S1-921-030-050		MG ARM
48	S1-921-140-210		REC BUTTON LEVER SPRING
49	S1-821-100-690		RECORD SAFETY LEVER
50	S1-921-120-540		MOTOR BRACKET
51	S1-821-010-500		PLAY BUTTON LEVER SPRING
52	S6-201-011-110		R.P HEAD
53	S6-401-011-490		LEAF SW MSW-1541T
54	S1-921-015-010		CHASSIS ASSY
55	S1-921-030-100		MG ARM SPRING
58	S1-510-020-020		REC SPRING PLATE
59	S1-821-120-660		MOTOR RUBBER
60	S1-921-010-160		SIDE BRACKET
A	S9-P04-200-310		TAPPING SCREW 2-3
B	S1-851-140-180		MOTOR COLLER SCREW
C	S9-679-000-000		P TAP SCREW M2-5
D	S9-999-180-090		TAP SCREW M2-4.5
E	S9-004-000-000		SCREW M2-6
F	S9-P01-200-310		+ SCREW M2-3
G	S9-922-000-000		AZIMUTH SCREW M2-8
I	S9-422-000-000		P WASHER CUT 12-3.8-0.3
J	S9-999-030-130		P WASHER CUT 1.45-3.8-0.
K	S9-882-000-000		P WASHER 2-3.5-0.4
L	S9-999-000-030		P WASHER2.1-4-0.13
M	S9-999-200-410		P TAP SCREW M2-3
N	S9-180-000-000		C TAPPING SCREW M2-4
O	S9-P05-200-810		S TAPPING SCREW M2-8
R	S9-539-000-000		Y WASHER B S 0.2T

CD MECHANISM EXPLODED VIEW 1/1



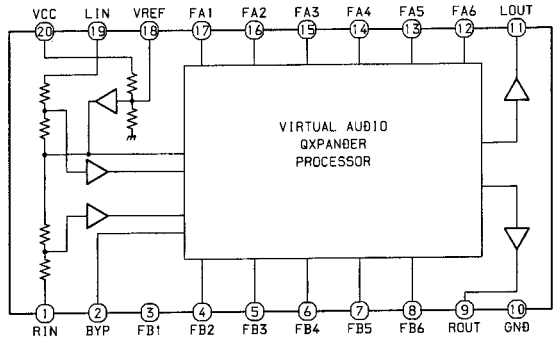
CD MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

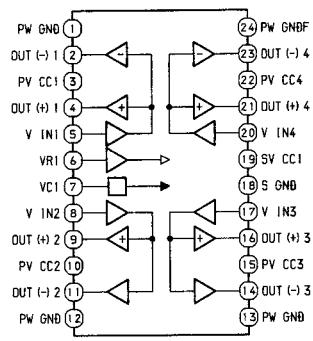
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	83-ZG2-202-71K		O-SERT S ASSY,S
2	83-ZG2-204-419		GEAR,A
3	83-ZG2-205-219		GEAR,B
4	83-ZG2-220-01K		GEAR MOTOR 2
5	83-ZG2-207-119		SHAFT,SLIDE
6	87-070-445-010		PICK-UP,KSS-213B
8	83-ZG2-226-11K		TURN TABLE,B3
A	87-261-032-219		SCREW V+2-3

IC BLOCK DIAGRAM

IC, MM1326AJBE



IC, TA2092N



See the CSD-ES200/ES230/AP1 (S/M Cord No. 09-969-164-301) of the IC BLOCK DIAGRAM and IC DESCRIPTION below.	
CSD-ES200	CSD-SL10
LA9240M	LA9240M
LC78622E	LC78622E
LC6543F	LC6543F
TA8127N	TA8127N
AN7310N	AN7310N
TA8227P	TA8227P

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

サービス技術ニュース	
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アイワ株式会社
AIWA CO.,LTD.

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931261

Tokyo Japan

Printed in Singapore

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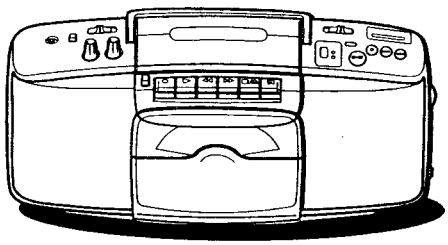
aiwa SERVICE

CSD-SL10

SERVICE MANUAL



COMPACT DISC STEREO
CASSETTE RECORDER

- BASIC TAPE MECHANISM : TN-21ZSC-1745
- BASIC CD MECHANISM : 3ZG-2 D1
- TYPE: HR

SUPPLEMENT

- This Service manual contains information about the difference between CSD-SL10 (HRL) and CSD-SL10 (HRS). If requiring the other information, see Service Manual of CSD-SL10 (HRS). (S/M Code No. 09-977-208-90I).

S/M Code No. 09–982-242-7FE

SPECIFICATIONS

<Tuner section>

Frequency range	87.5 MHz - 108.0 MHz Antenna : Rod antenna AM : 530 - 1605 kHz Antenna : Ferrite bar antenna

<Deck section>

Track format	4 tracks, 2 channels
Frequency response	Normal tape : 50 Hz –12500 Hz (EIAJ)
Recording system	AC bias
Erasing system	Magnet erase
Heads	Recording/playback (1) erasure head (1)

<CD player section>

Disc	Compact disc
Scanning method	Non-contact optical scanner (semiconductor laser)

<Common section>

Speakers	100 mm cone type (2) 75 mm cone type (2)
Output	Headphones jack (stereo mini-jack)
Power output	2W + 2W (EIAJ 8Ω DC)
Power requirements	DC 12V using eight R14(size C) batteries AC 110-120V/220-240V Switchable, 50/60Hz
Power consumption	15 W
Dimensions of main unit	410 (W) x 191.7 (H) x 142 (D) mm
Weight of main unit	Approx. 3.2 kg (excluding batteries)

• Design and specifications are subject to change without notice.

ACCESSORIES / PACKAGE LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	S4-402-412-000		INSTRUCTION BOOK
2	87-050-076-010		CORD,POWER AC
⚠ 3	S2-3A0-092-000		PLUG CONVERSION CCT5902B0701

ELECTRICAL MAIN PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A20-042-010		IC,BA178M05T
DIODE			
	89-320-011-080		TR,2SC2001L
	S2-2SB-165-5E7		TR,2SB1655E
MAIN C.B			
C291	87-010-496-04		CAP,E 3.3UF-50V

MECHANICAL PARTS LIST 1 / 1

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
4	S1-036-920-303		DOOR,CD
5	S2-012-500-303		GRILL,SPKR (R)
11	S2-005-133-000		MAGNET DOOR CD
12	S1-037-260-102		HOLDER,CHUCK
13	S1-037-290-103		CHUCK,CD
14	S2-012-490-303		GRILL,SPKR (L)
15	S1-036-880-804		CAB,FRONT
16	S1-037-090-201		KNOB,TONE
18	S1-037-020-201		KNOB,VOL
19	S1-037-010-301		KNOB,SLIDE
22	S1-036-980-501		LENZ,DISPLAY
26	S1-036-990-701		LENZ,DIAL
27	S1-037-050-201		KEY,CD
32	S1-036-901-101		BRACKET CASS
35	S1-036-950-701		DOOR,CASS PANEL HIPS
44	S1-036-891-102		CAB,REAR
45	SI-036-930-302		HANDLE
46	S1-036-940-302		COVER,HANDLE
48	S1-036-960-402		DOOR,BAT
61	S1-037-040-401		KNOB,TUNING
69	S1-015-171-000		COVER,SW POWER
C	87-067-767-010		BH/MS 2.6-L6MM
E	87-741-095-410		PH/TS 3-L8MM
G	87-741-095-410		PH/MS 3-L8MM
I	87-067-472-010		WPH/TS 3-L10MM
J	87-342-099-210		WH/TS 3-L14MM
P	87-741-097-010		PH/TS 3-L12MM
Q	87-743-073-410		WPH/TS 2.6-L6MM

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